

IN THE CLAIMS

1. (Previously presented) A method for avoiding simultaneous service origination and paging in a mobile operating in a group communication network, the method comprising:

receiving a floor-control request from a source communication device for initiating a group call;

initiating a service origination process for the source communication device;

transmitting a response to the floor-control request from a controller after the service origination process is complete; and

avoiding a race condition between the service origination process and paging by performing at least one of the following:

configuring a communications manager (CM) to not respond immediately to the floor-control request;

coordinating operation of a packet data serving node (PDSN) which receives a CM initiated response and a mobile switching center (MSC) which responds to a talker's service origination request; and

not issuing a service origination request until after a talker mobile station (MS) has received a response to the floor-control request.

2. (Original) The method of Claim 1, further including caching the floor-control response before the transmitting.

3. (Original) The method of Claim 1, wherein the receiving includes receiving the floor-control request on a reverse common channel.

4. (Original) The method of claim 3, wherein the receiving includes receiving the floor-control request on a reverse access channel (R-ACH).

5. (Original) The method of claim 3, wherein the receiving includes receiving the floor-control request on a reverse enhanced access channel (R-EACH).

6. (Original) The method of claim 3, wherein the receiving includes receiving the floor-control request in short data burst (SDB) form.

7. (Previously presented) A method for avoiding simultaneous service origination and paging in a mobile operating in a group communication network, the method comprising:

receiving a floor-control request from a source communication device for initiating a group call;

initiating a service origination process for the source communication device;

transmitting a response to the floor-control request from a wireless infrastructure after the service origination process is complete; and

avoiding a race condition between the service origination process and paging by performing at least one of the following:

configuring a communications manager (CM) to not respond immediately to the floor-control request;

coordinating operation of a packet data serving node (PDSN) which receives a CM initiated response and a mobile switching center (MSC) which responds to a talker's service origination request; and

not issuing a service origination request until after a talker mobile station (MS) has received a response to the floor-control request.

8. (Original) The method of Claim 7, further including caching the floor-control response before the transmitting.

9. (Original) The method of Claim 7, wherein the receiving includes receiving the floor-control request on a reverse common channel.

10. (Original) The method of claim 9, wherein the receiving includes receiving the floor-control request on a reverse access channel (R-ACH):

11. (Original) The method of claim 9, wherein the receiving includes receiving the floor-control request on a reverse enhanced access channel (R-EACH).

12. (Original) The method of claim 9, wherein the receiving includes receiving the floor-control request in short data burst (SDB) form.

13. (Previously presented) A method for avoiding simultaneous service origination and paging in a mobile operating in a group communication network, the method comprising:

receiving a floor-control request from a source communication device for initiating a group call;

transmitting a response to the floor-control request;

initiating a service origination process for the source communication device; and

avoiding a race condition between the service origination process and paging by

performing at least one of the following:

configuring a communications manager (CM) to not respond immediately to the floor-control request;

coordinating operation of a packet data serving node (PDSN) which receives a CM initiated response and a mobile switching center (MSC) which responds to a talker's service origination request; and

not issuing a service origination request until after a talker mobile station (MS) has received a response to the floor-control request.

14. (Original) The method of claim 13, wherein the transmitting includes transmitting the response on a forward common channel.

15. (Original) The method of claim 14, wherein the transmitting includes transmitting the response on a forward paging channel (F-PCH).

16. (Original) The method of claim 14, wherein the transmitting includes transmitting the response on a forward common control channel (F-CCCH).

17. (Original) The method of claim 14, wherein the transmitting includes transmitting the response in short data burst (SDB) form.

18. (Previously presented) A computer-readable medium embodying a method for avoiding simultaneous service origination and paging in a mobile operating in a group communication network, the method comprising:

receiving a floor-control request from a source communication device for initiating a group call;

initiating a service origination process for the source communication device;

transmitting a response to the floor-control request from a controller after the service origination process is complete; and

avoiding a race condition between the service origination process and paging by performing at least one of the following:

configuring a communications manager (CM) to not respond immediately to the floor-control request;

coordinating operation of a packet data serving node (PDSN) which receives a CM initiated response and a mobile switching center (MSC) which responds to a talker's service origination request; and

not issuing a service origination request until after a talker mobile station (MS) has received a response to the floor-control request.

19. (Original) The computer-readable medium of Claim 18, wherein the method further includes caching the floor-control response before the transmitting.

20. (Original) The computer-readable medium of Claim 18, wherein the receiving includes receiving the floor-control request on a reverse common channel.

21. (Original) The computer-readable medium of claim 20, wherein the receiving includes receiving the floor-control request on a reverse access channel (R-ACH).

22. (Original) The computer-readable medium of claim 20, wherein the receiving includes receiving the floor-control request on a reverse enhanced access channel (R-EACH).

23. (Original) The computer-readable medium of claim 20, wherein the receiving includes receiving the floor-control request in short data burst (SDB) form.

24. (Previously presented) A computer-readable medium embodying a method for avoiding simultaneous service origination and paging in a mobile operating in a group communication network, the method comprising:

receiving a floor-control request from a source communication device for initiating a group call;

initiating a service origination process for the source communication device;

transmitting a response to the floor-control request from a wireless infrastructure after the service origination process is complete; and

avoiding a race condition between the service origination process and paging by performing at least one of the following:

configuring a communications manager (CM) to not respond immediately to the floor-control request;

coordinating operation of a packet data serving node (PDSN) which

receives a CM initiated response and a mobile switching center (MSC) which responds to a talker's service origination request; and

not issuing a service origination request until after a talker mobile station (MS) has received a response to the floor-control request.

25. (Original) The computer-readable medium of Claim 24, wherein the method further includes caching the floor-control response before the transmitting.

26. (Original) The computer-readable medium of Claim 24, wherein the receiving includes receiving the floor-control request on a reverse common channel.

27. (Original) The computer-readable medium of claim 26, wherein the receiving includes receiving the floor-control request on a reverse access channel (R-ACH).

28. (Original) The computer-readable medium of claim 26, wherein the receiving includes receiving the floor-control request on a reverse enhanced access channel (R-EACH).

29. (Original) The computer-readable medium of claim 26, wherein the receiving includes receiving the floor-control request in short data burst (SDB) form.

30. (Previously presented) A computer-readable medium embodying a method for avoiding simultaneous service origination and paging in a mobile operating in a group communication network, the method comprising:

receiving a floor-control request from a source communication device for initiating a group call;

transmitting a response to the floor-control request;

initiating a service origination process for the source communication device; and

avoiding a race condition between the service origination process and paging by

performing at least one of the following:

configuring a communications manager (CM) to not respond immediately to the floor-control request;

coordinating operation of a packet data serving node (PDSN) which receives a CM initiated response and a mobile switching center (MSC) which responds to a talker's service origination request; and

not issuing a service origination request until after a talker mobile station (MS) has received a response to the floor-control request.

31. (Original) The computer-readable medium of claim 30, wherein the transmitting includes transmitting the response on a forward common channel.

32. (Original) The computer-readable medium of claim 31, wherein the transmitting includes transmitting the response on a forward paging channel (F-PCH).

33. (Original) The computer-readable medium of claim 31, wherein the transmitting includes transmitting the response on a forward common control channel (F-CCCH).

34. (Original) The computer-readable medium of claim 31, wherein the transmitting includes transmitting the response in short data burst (SDB) form.

35. (Previously presented) An apparatus for avoiding simultaneous service origination and paging in a mobile operating in a group communication network, comprising:

means for receiving a floor-control request from a source communication device for initiating a group call;

means for initiating a service origination process for the source communication device;

means for transmitting a response to the floor-control request from a controller after the service origination process is complete; and

avoiding a race condition between the service origination process and paging by performing at least one of the following:

configuring a communications manager (CM) to not respond immediately to the floor-control request;

coordinating operation of a packet data serving node (PDSN) which receives a CM initiated response and a mobile switching center (MSC) which responds to a talker's service origination request; and

not issuing a service origination request until after a talker mobile station (MS) has received a response to the floor-control request.

36. (Original) The apparatus of Claim 35, further including means for caching the floor-control response before the transmitting.

37. (Original) The apparatus of Claim 35, wherein the means for receiving includes means for receiving the floor-control request on a reverse common channel.

38. (Original) The apparatus of claim 37, wherein the means for receiving includes means for receiving the floor-control request on a reverse access channel (R-ACH).

39. (Original) The apparatus of claim 37, wherein the means for receiving includes means for receiving the floor-control request on a reverse enhanced access channel (R-EACH).

40. (Original) The apparatus of claim 37, wherein the means for receiving includes means for receiving the floor-control request in short data burst (SDB) form.

41. (Previously presented) An apparatus for avoiding simultaneous service origination and paging in a mobile operating in a group communication network, the method comprising:
means for receiving a floor-control request from a source communication device for initiating a group call;
means for initiating a service origination process for the source communication device;

means for transmitting a response to the floor-control request from a wireless infrastructure after the service origination process is complete; and

avoiding a race condition between the service origination process and paging by performing at least one of the following:

configuring a communications manager (CM) to not respond immediately to the floor-control request;

coordinating operation of a packet data serving node (PDSN) which receives a CM initiated response and a mobile switching center (MSC) which responds to a talker's service origination request; and

not issuing a service origination request until after a talker mobile station (MS) has received a response to the floor-control request.

42. (Original) The apparatus of Claim 41, further including means for caching the floor-control response before the transmitting.

43. (Original) The apparatus of Claim 41, wherein the means for receiving includes means for receiving the floor-control request on a reverse common channel.

44. (Original) The apparatus of claim 43, wherein the means for receiving includes means for receiving the floor-control request on a reverse access channel (R-ACH).

45. (Original) The apparatus of claim 43, wherein the means for receiving includes means for receiving the floor-control request on a reverse enhanced access channel (R-EACH).

46. (Original) The apparatus of claim 43, wherein the means for receiving includes means for receiving the floor-control request in short data burst (SDB) form.

47. (Previously presented) An apparatus for avoiding simultaneous service origination and paging in a mobile operating in a group communication network, the method comprising:

means for receiving a floor-control request from a source communication device for initiating a group call;

means for transmitting a response to the floor-control request;

means for initiating a service origination process for the source communication device;

and

avoiding a race condition between the service origination process and paging by performing at least one of the following:

configuring a communications manager (CM) to not respond immediately to the floor-control request;

coordinating operation of a packet data serving node (PDSN) which receives a CM initiated response and a mobile switching center (MSC) which responds to a talker's service origination request; and

not issuing a service origination request until after a talker mobile station (MS) has received a response to the floor-control request.

48. (Original) The apparatus of claim 47, wherein the means for transmitting includes means for transmitting the response on a forward common channel.

49. (Original) The apparatus of claim 48, wherein the means for transmitting includes means for transmitting the response on a forward paging channel (F-PCH).

50. (Original) The apparatus of claim 48, wherein the means for transmitting includes means for transmitting the response on a forward common control channel (F-CCCH).

51. (Original) The apparatus of claim 48, wherein the means for transmitting includes means for transmitting the response in short data burst (SDB) form.

52. (Previously presented) An apparatus for avoiding simultaneous service origination and paging in a mobile operating in a group communication network, comprising:

a receiver;

a transmitter; and

a processor communicatively coupled to the receiver and the transmitter, the processor being capable of:

receiving a floor-control request from a source communication device for initiating a group call;

initiating a service origination process for the source communication device;

transmitting a response to the floor-control request from a controller after the service origination process is complete; and

avoiding a race condition between the service origination process and paging by performing at least one of the following:

configuring a communications manager (CM) to not respond immediately to the floor-control request;

coordinating operation of a packet data serving node (PDSN) which receives a CM initiated response and a mobile switching center (MSC) which responds to a talker's service origination request; and

not issuing a service origination request until after a talker mobile station (MS) has received a response to the floor-control request.

53. (Original) The apparatus of Claim 52, the processor further being capable of caching the floor-control response before the transmitting.

54. (Original) The apparatus of Claim 52, wherein the receiving includes receiving the floor-control request on a reverse common channel.

55. (Original) The apparatus of claim 54, wherein the receiving includes receiving the floor-control request on a reverse access channel (R-ACH).

56. (Original) The apparatus of claim 54, wherein the receiving includes receiving the floor-control request on a reverse enhanced access channel (R-EACH).

57. (Original) The apparatus of claim 54, wherein the receiving includes receiving the floor-control request in short data burst (SDB) form.

58. (Previously presented) An apparatus for avoiding simultaneous service origination and paging in a mobile operating in a group communication network, the method comprising:

- a receiver;

- a transmitter; and

- a processor communicatively coupled to the receiver and the transmitter, the processor being capable of:

 - receiving a floor-control request from a source communication device for initiating a group call;

 - initiating a service origination process for the source communication device;

 - transmitting a response to the floor-control request from a wireless infrastructure after the service origination process is complete; and

 - avoiding a race condition between the service origination process and paging by performing at least one of the following:

 - configuring a communications manager (CM) to not respond immediately to the floor-control request;

 - coordinating operation of a packet data serving node (PDSN) which receives a CM initiated response and a mobile switching center (MSC) which responds to a talker's service origination request; and

not issuing a service origination request until after a talker mobile station (MS) has received a response to the floor-control request.

59. (Original) The apparatus of Claim 58, the processor further being capable of caching the floor-control response before the transmitting.

60. (Original) The apparatus of Claim 58, wherein the receiving includes receiving the floor-control request on a reverse common channel.

61. (Original) The apparatus of claim 60, wherein the receiving includes receiving the floor-control request on a reverse access channel (R-ACH).

62. (Original) The apparatus of claim 60, wherein the receiving includes receiving the floor-control request on a reverse enhanced access channel (R-EACH).

63. (Original) The apparatus of claim 60, wherein the receiving includes receiving the floor-control request in short data burst (SDB) form.

64. (Previously presented) An apparatus for avoiding simultaneous service origination and paging in a mobile operating in a group communication network, the method comprising:

a receiver;

a transmitter; and

a processor communicatively coupled to the receiver and the transmitter, the processor being capable of:

receiving a floor-control request from a source communication device for initiating a group call;

transmitting a response to the floor-control request;

initiating a service origination process for the source communication device; and

avoiding a race condition between the service origination process and paging by

performing at least one of the following:

configuring a communications manager (CM) to not respond immediately to the floor-control request;

coordinating operation of a packet data serving node (PDSN) which receives a CM initiated response and a mobile switching center (MSC) which responds to a talker's service origination request; and

not issuing a service origination request until after a talker mobile station (MS) has received a response to the floor-control request.

65. (Original) The apparatus of claim 64, wherein the transmitting includes transmitting the response on a forward common channel.

66. (Original) The apparatus claim 65, wherein the transmitting includes transmitting the response on a forward paging channel (F-PCH).

67. (Original) The apparatus of claim 65, wherein the transmitting includes transmitting the response on a forward common control channel (F-CCCH).

68. (Original) The apparatus of claim 65, wherein the transmitting includes transmitting the response in short data burst (SDB) form.

69. (Original) The apparatus of claim 68, wherein the source communication device includes a push-to-talk (PTT) device.